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IS 4632 (1968): Square Sliders for Stitch Regulators for Sewing Machines for Household Purposes [MED 29: Sewing Machines]



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SPECIFICATION FOR SQUARE SLIDERS FOR STITCH REGULATORS FOR SEWING MACHINES FOR HOUSEHOLD PURPOSES

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SPECIFICATION FOR SQUARE SLIDERS FOR STITCH REGULATORS FOR SEWING MACHINES FOR HOUSEHOLD PURPOSES

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(*Continued on page 2*)

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Indian Standard
**SPECIFICATION FOR
SQUARE SLIDERS FOR STITCH REGULATORS
FOR SEWING MACHINES FOR
HOUSEHOLD PURPOSES**

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 26 April 1968, after the draft finalized by the Sewing Machines Sectional Committee had been approved by the Mechanical Engineering Division Council.

0.2 This standard covers the requirements for square sliders for stitch regulators for sewing machines for household purposes and is intended to assist in regulating the quality of indigenous square sliders for stitch regulators. This is one of a series of Indian Standards on sewing machines and their components.

0.3 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard specifies the requirements for two types of square sliders for stitch regulators for sewing machines for household purposes.

1.1.1 This standard does not deal with square sliders for stitch regulators for industrial or special purposes sewing machines.

2. NOMENCLATURE

2.1 For the purpose of this standard, the nomenclature as given in Fig. 1 shall apply.

*Rules for rounding off numerical values (*revised*).

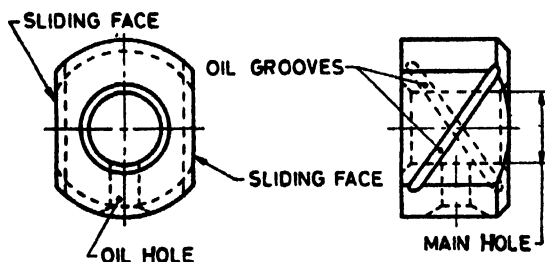


FIG. 1 NOMENCLATURE FOR SQUARE SLIDERS FOR STITCH REGULATORS

3. MATERIAL

3.1 The square sliders shall be manufactured from any suitable case-hardening steel such as 11Mn2 of Schedule IV of IS : 1570-1961* with maximum sulphur and phosphorus content of 0.05 percent each, or from steel having the following chemical compositions:

<i>Constituent</i>	<i>Percent</i>
Carbon	0.07 to 0.15
Silicon	0.10
Manganese	0.8 to 1.10
Sulphur	0.15 to 0.25
Phosphorus	0.05, <i>Max</i>

4. HARDNESS

4.1 The sliding faces and bearing surfaces of the main hole of square sliders shall be case-hardened to a minimum depth of 0.2 mm to attain a hardness value of 450 *HV Min* (see IS : 1501-1959†) in case of Type A square sliders, and 650 to 750 *HV* in case of Type B square sliders.

5. DIMENSIONS

5.1 The main dimensions for square sliders shall be as given in Tables 1 and 2.

6. TOLERANCES

6.1 The error in parallelism of sliding faces of square sliders shall be within 0.008 mm.

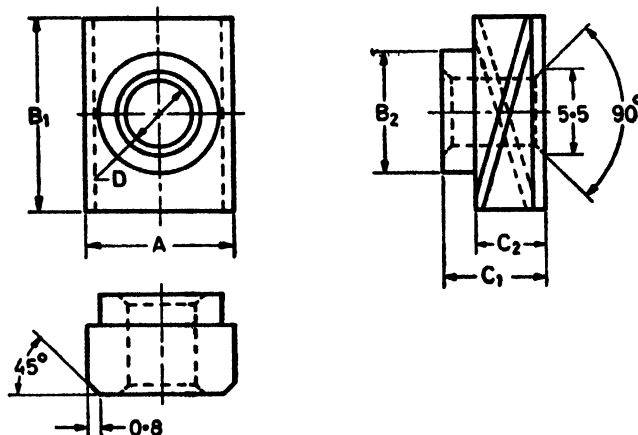
*Schedules for wrought steels for general engineering purposes.

†Method for Vickers hardness test for steel.

TABLE 1 DIMENSIONS FOR SQUARE SLIDERS FOR STITCH REGULATORS, TYPE A

(Clause 5.1)

All dimensions in millimetres.

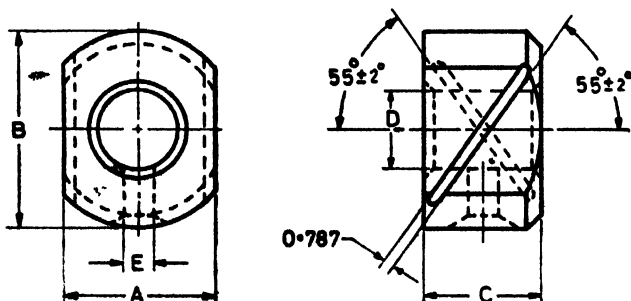


	<i>A</i>	<i>B</i> ₁	<i>B</i> ₂	<i>C</i> ₁	<i>C</i> ₂	<i>D</i>
<i>Max</i>	9.538	12.776	8.001	6.350	4.775	4.724
<i>Min</i>	9.525	12.649	7.874	6.274	4.724	4.712

TABLE 2 DIMENSIONS FOR SQUARE SLIDERS FOR STITCH REGULATORS, TYPE B

(Clause 5.1)

All dimensions in millimetres.



	<i>A</i>	<i>B</i>	<i>C</i>	<i>D</i>	<i>E</i>
<i>Max</i>	9.848	12.827	7.239	5.093	2.00
<i>Min</i>	9.830	12.573	7.112	5.080	1.93

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6.2 The sliding faces of square sliders shall be symmetrical with respect to the main hole within 0.5 mm.

7. WORKMANSHIP AND FINISH

7.1 The sliding faces and the main hole of square sliders shall be ground and lapped to a fine finish.

7.2 The oil hole and oil grooves shall be machined to a fine finish without any burrs.

7.3 The square sliders shall be well finished and shall be free from defects, such as rust, burrs or inferior surface treatment.

8. MARKING

8.1 The square sliders shall be marked with the manufacturer's name or trade-mark.

8.1.1 The square sliders may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act, and the Rules and Regulations made thereunder. Presence of this mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard, under a well-defined system of inspection, testing and quality control during production. This system, which is devised and supervised by ISI and operated by the producer, has the further safeguard that the products as actually marketed are continuously checked by ISI for conformity to the standard. Details of conditions, under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

9. PACKING

9.1 Each square slider shall be given a suitable anti-rust coating or wrapped in vapour phase inhibitor paper (commonly known as VPI paper). The wrapped square sliders shall be securely packed in accordance with the best prevalent trade practice. Each carton shall bear manufacturer's name or trade-mark, the type and description of contents.

9.1.1 The cartons may also be marked with the ISI Certification Mark (*see Note under 8.1.1*).

10. SAMPLING

10.1 Unless otherwise agreed to between the supplier and the purchaser, the sampling plan as given in Appendix A shall be followed. For further information reference may be made to IS : 2500 (Part I)-1963*.

*Sampling inspection tables : Part I Inspection by attributes and by count of defects.

APPENDIX A

(Clause 10.1)

SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY

A-1. SCALE OF SAMPLING

A-1.1 Lot — In any consignment, all the square sliders of the same type and manufactured from the same material under essentially similar conditions of manufacture shall be grouped together to constitute a lot.

A-1.2 For ascertaining the conformity of the lot to the requirements of the specification, tests shall be carried out for each lot separately. The number of square sliders to be selected at random for this purpose shall be in accordance with col 1 and 2 of Table 3.

A-1.3 If the square sliders are packed individually, in order to ensure the randomness of selection, random number tables shall be used. In case such tables are not available the following procedure may be adopted:

Starting from any square slider in the lot, count them in one order as 1, 2, 3,, up to r and so on, where r is the integral part of N/n (N being the lot size and n the sample size). Each square slider thus counted shall be selected to constitute the sample.

A-1.4 If the square sliders are packed in different cartons, a suitable number of cartons (not less than 20 percent of the total in the lot subject to a minimum of 2) shall be chosen at random. From each of the cartons so chosen, an approximately equal number of square sliders shall be picked up from its different parts so as to obtain the required number of square sliders specified in col 1 and 2 of Table 3.

A-2. NUMBER OF TESTS AND CRITERIA FOR CONFORMITY

A-2.1 The square sliders selected according to A-1.2 and A-1.3 or A-1.4 shall be examined for dimensions (*see* 5), tolerances (*see* 6) and workmanship and finish (*see* 7). If the number of square sliders failing to meet one or more of the requirements mentioned above is less than or equal to the permissible number of defectives given in col 3 of Table 3, the lot shall be declared as conforming to the requirements of these characteristics.

A-2.2 In the case of those lots which have been found satisfactory according to A-2.1, a number of square sliders equal to the sample size indicated in col 4 of Table 3, shall be subjected to hardness test (*see* 4). Any square slider failing to meet the requirement for hardness shall be considered to be defective.

TABLE 3 SCALE OF SAMPLING AND PERMISSIBLE NUMBER OF DEFECTIVES*(Clauses A-1.2, A-1.4, A-2.1 and A-2.2)*

No. of Square Sliders in the Lot			For Dimensions, Tolerances and Workmanship and Finish		Sample Size for Hardness
			Sample Size	Permissible No. of Defectives*	
<i>N</i>			<i>n</i>		
(1)			(2)	(3)	(4)
Up	to	15	5	0	2
16	"	40	8	0	3
41	"	110	13	0	3
111	"	300	20	1	5
301	"	500	32	1	6
501	"	800	50	2	8
801	"	1 300	80	3	10
1 301	and above		125	5	15

*This ensures that lots containing one and a half percent or less defectives will be accepted most of the time.

A-2.2.1 If no defectives are found among the square sliders subjected to the hardness test (*see A-2.2*), the lot shall be declared as conforming to the requirements of the specification, otherwise not.

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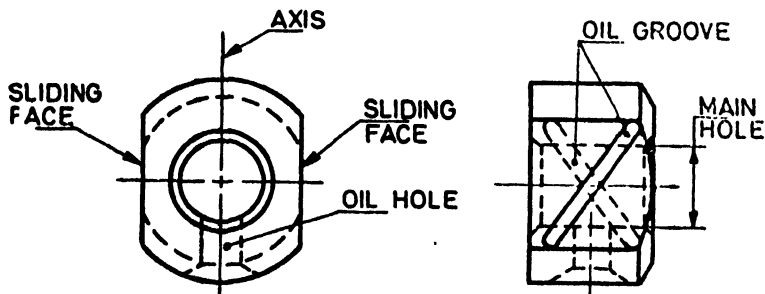
AMENDMENT NO. 1 NOVEMBER 1984

TO

IS : 4632-1968 SPECIFICATION FOR SQUARE SLIDERS FOR STITCH REGULATORS FOR SEWING MACHINES FOR HOUSEHOLD PURPOSES

Alterations

(Page 4, Fig. 1) — Substitute the following for the existing figure:

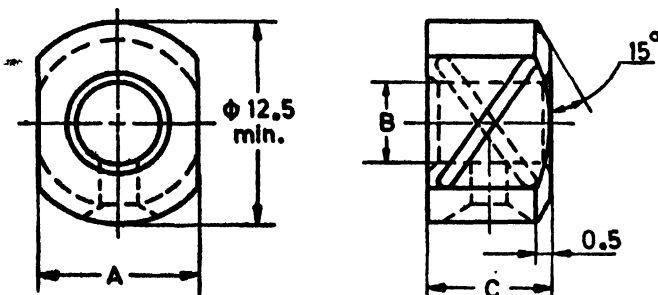


(Page 5, Table 2) — Substitute the following for the existing table:

**TABLE 2 DIMENSIONS FOR SQUARE SLIDER FOR STITCH
REGULATORS, TYPE B**

(Clause 5.1)

All dimensions in millimetres.



	A	B	C
Min	9·830	5·093	7·11
Max	9·848	5·105	7·24

(EDC 34)